In the outstanding Official Action, Claims 1-10 were rejected under 35 USC §103 as being unpatentable over by Fisher (USP 4,454,485); and Claims 11-20 were allowed.

Applicant acknowledges with appreciation the indication that Claims 11-20 have been allowed.

Applicant further thanks the Examiner for the courtesy of the interview granted to Applicant's attorney on June 4, 2003. During the interview, arguments as hereinafter discussed were presented, and agreement was reached "that the application will be allowed unless a more specific teaching can be found by the Examiner disclosing the specific limitation of the claims concerning the recited relationship between the input signal and the inductor value."[1]

The present change to Claim 14 corrects a minor informality, and does not raise a question of new matter.

Applicant respectfully traverses the outstanding ground for rejection on the merits, because in Applicant's view, Claims 1-10 clearly patentably define over the applied prior art.

In particular, pending Claim 1 states the following two features which are not described in Fisher.

1. The inductance of the inductor element is set in accordance with the frequency of the controlled signal.

2. The inductance of the inductor element so set forms a series resonance circuit with a reactance component of a gate-to-source impedance when a drain voltage of said FET is lower than a source voltage thereof;

[1] See the June 4, 2003 Interview Summary.

In regard to the first feature (1), the outstanding Office Action states that "this would have been obvious, however, to those having ordinary skill in the art who will of course choose a certain value for the inductor 17." Applicant respectfully traverses this finding because it fails to address exactly to what "value" and on what basis the person skilled in the art would set the inductance to. In particular, there is no teaching in the prior art to set the inductance value of the claimed inductor in accordance with the frequency of the controlled signal.

On the contrary, the oscillation circuit of Fisher is a Colpitts oscillation circuit. As described at column 2, lines 6-8 of Fisher, the inductor 17 of Fig. 1 "is not a frequency deciding component, [but] allows high DC gain for the stabilization loop." Further, as noted at column 2, lines 19-21 of Fisher, "[i]nductor 17 is chosen to be well beyond self-resonance at the oscillation frequency, and increases the net capacitance to ground from the FET source." From this disclosure, it is respectfully submitted that the function of the inductor 17 is completely different and unrelated to the function of the inductor recited in Claim 1. Furthermore, Fisher clearly includes no teaching that there is any relationship between the inductor 17 and the gate-to-source impedance of the FET 12 of the Fisher Colpitts oscillator.

In contrast, the inductance of the inductor element of Claim 1 is indeed a "frequency-determining component" having a value set in relation to the frequency of the controlled signal applied to the gate of the FET to form a series resonance circuit with a reactance component of a gate-to-source impedance when a drain voltage of said FET is lower than a source voltage thereof. By setting the value of the inductance to substantially coincide the resonance frequency of the series resonance circuit with the frequency of the controlled signal, the series resonant circuit presents a high impedance to the controlled signal, and it is thereby possible to decrease the amount of the signal transmission when the FET is in the off state.

It is respectfully submitted that there is no teaching in Fisher to provide an inductor having an inductance determined in accordance with the frequency of the controlled signal to create a series resonant circuit with the FET gate-to-source impedance at the frequency of the controlled signal, thereby to present a high impedance to the controlled signal by virtue of the claimed series resonance circuit thereby achieved. Furthermore, in view of the different functionality of the inductor 17 of Fisher, there is no motivation to select a value for the inductance to establish a series resonant circuit of any kind, since the Fisher inductor is "not a frequency determining component." Thus, it is respectfully submitted that the claimed invention is not "inherent" in the circuit of Fisher, in view of the completely different functionality between the inductor of Fisher and that of the claimed invention.[2] In view of these considerable deficiencies, it is respectfully submitted that, absent hindsight, the claimed invention clearly would not be obvious to the skilled artisan given the teachings of Fisher.

[2] ``The doctrine of inherency is available only when the prior inherent event can be established as a certainty. That an event may result from a given set of circumstances is not sufficient to establish anticipation. Probabilities are not sufficient. ... A prior inherent event cannot be established based upon speculation or where a doubt exists."); Phillips Petroleum Co. v. U.S. Steel Corp., 673 F. Supp. 1278, 1295 n.12, 6 USPQ2d 1065, 1076-77 n.12 (D. Del. 1987), aff'd, 865 F.2d 1247, 9 USPQ2d 1461 (Fed. Cir. 1989) (``The issue is whether all of the elements of the claim ... are disclosed in the [prior art] patent, either expressly or under principles of inherency, or whether the claim ... was `previously known or embodied' in [that] patent. ... `... Anticipation of inventions set forth in product claims cannot be predicated on mere conjecture respecting the characteristics of products that might result from the practice of processes disclosed in references.' ").

Consequently, in view of the present amendment and in light of the above discussion, the pending claims are believed to be in condition for allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

22850

Tel.: (703) 413-3000
Fax: (703) 413-2220
EHK/cja
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Marked-Up Copy
Serial No: 09/841,595
Amendment Filed on: June 9, 2003

IN THE CLAIMS

--14. (Amended) A semiconductor integrated circuit as set forth in claim 11, which further comprises a control signal input circuit, connected to the drain terminal of said FET, configured to switch and [controlling] control the magnitude relationship between the drain voltage and the source voltage of said FET.--

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OIPE JC139 JUN 09 2003 PATENT & TRADEMARK OFFICE

Docket No. 206569US2
IN RE APPLICATION OF: Koichi MOTOIKE
SERIAL NO: 09/841,595
RCE FILED: March 5, 2003
FOR: SEMICONDUCTOR INTEGRATED CIRCUIT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:
Transmitted herewith is an amendment w/marked-up copy in the above-identified application.

■ No additional fee is required

☐ Small entity status of this application under 37 C.F.R. §1.9 and §1.27 is claimed.

☐ Additional documents filed herewith:

The Fee has been calculated as shown below:

CLAIMS	CLAIMS REMAINING		HIGHEST NUMBER PREVIOUSLY PAID	NO. EXTRA CLAIMS	RATE	CALCULATIONS
TOTAL	20	MINUS	20	0	x $18 =	$0.00
INDEPENDENT	2	MINUS	3	0	x $84 =	$0.00
		☐ MULTIPLE DEPENDENT CLAIMS			+ $280 =	$0.00
		TOTAL OF ABOVE CALCULATIONS				$0.00
		☐ Reduction by 50% for filing by Small Entity				$0.00
		☐ Recordation of Assignment			+ $40 =	$0.00
		TOTAL				$0.00

☐ A check in the amount of **$0.00** is attached.

■ Please charge any additional Fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.

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OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Eckhard H. Kuesters

Eckhard H. Kuesters
Registration No. 28,870

22850

Customer Number 22850
Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 05/03)

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OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Eckhard H. Kuesters
Registration No. 28,870

22850

Customer Number 22850
Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 05/03)